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May 12, 2017 ***Via Email***

Mr. James Moras, P.E.
Section Chief
Section C, Remedial Bureau B
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7015
james.moras@dec.ny.gov

RE: Supplemental Scope of Work
Saint-Gobain Performance Plastics
14 McCaffrey Street
Village of Hoosick Falls, Rensselaer County
DEC Site No.: 442046

Dear Mr. Moras:

This letter provides the proposed plan for supplemental hydrogeologic investigations to further define the overall nature and extent of Perfluorinated Compounds (PFC) impacts to soils and groundwater within the vicinity of the McCaffrey Street project site.

The following scope of work has been developed on the basis of the findings of the investigations completed to date, particularly the analytical results for PFCs in groundwater samples from the previously installed monitoring wells and extruder pit, and the radial groundwater flow pattern away from the topographic high point within the northern sections of the site property in both the shallow and deep monitoring well arrays. Additional supplemental investigations are also planned based on ongoing evaluations of the data and requests from Department staff.

The supplemental investigations will be completed in accordance with protocols presented in the approved RI/FS Work Plan.

Scope of Supplemental Investigations

The following is presented in the planned order of completion.

1. Video inspection of portions of the exterior, on-site storm water and waste water piping, and off-site sewer piping has been completed. Additional video inspections will be completed of interior and exterior piping runs to the extent possible based on the condition of the piping. The inspections will include the following:
    a. The sewer line between the boiler room in the 1961 building and the sewer manhole adjacent to monitoring well MW-8,
    b. The 4-inch diameter overflow pipe in the sewer ejector pit in the 1966 building,
    c. The original (abandoned) sewer line from the ejector pit to the manhole adjacent to MW-9,
    d. The roof drain piping systems within the 1961 and 1966 sections of the facility,
    e. Undefined piping runs that are not depicted in the 1961 or 1966 building plan sets,
    f. The piping from the manhole adjacent to MW-9 to the sewer pump station,
    g. The section of the sewer force main from the sewer pump station to the point where it transitions to gravity flow at the intersection of Redmond and McCaffrey Streets, and
    h. The sections of sewer pipe from the sewer manhole within Carey Avenue to the sewer pump station.

    The locations of the municipal sewer lines, sewer overflow pipe, and facility roof drain pipe and sewer lines are depicted in Figure 1 (attached). Additional utility lines will be surveyed and added to Figure 1 as a function of the above.

2. To further evaluate PFC concentrations in groundwater within the northern portion of the site relative to potential sources (buried sewer line and on-site sewer manholes), Geoprobe soil borings will be completed at:

    a. The northeastern corner of the 1961 building,
    b. Adjacent to each of the sanitary manholes located in proximity to monitoring wells MW-8, MW-9, and
    c. Sewer manhole within Carey Avenue which conveys sewage overflow to the overflow pipe (see attached plan).

The purpose of the borings is to characterize PFC concentrations in soils just above and immediately below the sewer line route from the building to the manhole, in proximity to MW-8, and above and below the base elevation of each manhole. Additional soil samples may be collected for laboratory analysis, based on subjective impacts (PID screening and organoleptic perception) of the recovered materials. Following the collection of the soil samples, the borings will be advanced to the water table and a groundwater sample will be collected using Geoprobe screen point sampling or alternative method. The soil and groundwater samples will be analyzed for PFCs, VOCs, Total Organic Carbon (TOC), pH and moisture content (soil).

3. Geoprobe soil borings will be completed at approximately 100-foot horizontal intervals along and adjacent to the municipal sewer overflow pipe route, from the sewer manhole located in Carey Avenue to the outfall location adjacent to the railroad bed located in the southwestern corner of the site. Based on the visual (video) condition of the pipe, the spacing of the borings will be adjusted to target locations where obvious compromises to the pipe integrity (cracks/collapse) are identified (including pipe offsets, misalignments and separations). Geoprobes will be completed directly adjacent to the pipe at each sampling location. A two-foot soil sample interval from the approximate invert elevation of the pipe will be collected and analyzed for PFC, VOC, TOC, pH and moisture content. The Geoprobe will then be advanced below the water table. A groundwater sample will be collected with a screen point sampler or alternative method from the upper 5 feet of the aquifer and analyzed for PFCs, VOCs, major cations and anions and TOC.

   Based on review of the other on-site and off-site sewer line video inspections, additional borings and groundwater collection points may be completed along those routes. These locations will be provided to the Department for review prior to completion.

4. Permanent 2" diameter shallow and deep monitoring well couplets will be installed at the 11 locations shown in the attached plan. The shallow well component will be installed with 5 to 10 feet of well screen, such that it straddles the water table. The deep well component will be set above either glacial till (if not saturated) or bedrock (if the till is saturated) with approximately 5 feet of well screen. The wells will be installed in Rotosonic borings that are completed in the same manner as the previously installed 2-inch diameter monitoring wells

within the site. Soil and groundwater sampling will be completed consistent with the RI Work Plan and analyzed for the chemical parameters listed in the RI Work Plan.

5. Temporary shallow and deep 1.25" diameter Geoprobe monitoring wells will be installed at the locations shown between the facility and Village Well Field, as presented on the attached Site Map. The purpose of the temporary wells is to collect discrete groundwater samples from the upper portion (5 to 10 feet) of the aquifer, and just above the contact with either bedrock or dense glacial till. Soil and groundwater sampling will be completed consistent with the RI Work Plan and analyzed for the chemical parameters listed in the RI Work Plan. The wells will first be developed and then purged prior to sampling. Groundwater samples will be collected upon achieving stabilized field parameter readings or evacuation of five well volumes of water, whichever occurs first. If the turbidity values are not achieved, both dissolved (filtered) and total (un-filtered) samples will be collected for laboratory analysis. Sample filtering will be completed in the laboratory.

6. A minimum of 2 rounds of groundwater levels will be collected within a 3 to 4 week period from the existing monitoring wells, and new temporary Geoprobe and permanent 2-inch diameter monitoring wells. The locations of the new temporary and permanent monitoring wells will be surveyed and the elevations of the well casings will be established. The groundwater level data sets will be evaluated along with the groundwater analytical results in order to determine which temporary locations would best serve as permanent 2-inch diameter PVC monitoring wells, in consultation with NYSDEC. Select temporary monitoring wells will be converted to permanent monitoring wells. The permanent monitoring wells will consist of shallow and deep well couplets. After the permanent monitoring wells have been installed, the temporary monitoring wells will be abandoned in accordance with CP-43, "Groundwater Monitoring Well Decommissioning Policy".

7. Installation of bedrock wells will be considered at some of the permanent overburden well couplet locations upon the completion of this scope of work.

8. Two additional area wide synoptic groundwater elevation monitoring events will be completed in coordination with Honeywell which will include the Johns Street and River Road sites. At least one of the rounds will be completed shortly

after the installation of the temporary and permanent monitoring wells identified herein.

9. A geophysical (Electromagnetic) survey will be conducted on lands west of the plant, including the Village property west of the railroad track bed down to the river, for possible geophysical anomalies that may represent buried metal debris (see attached figure for approximate area of survey). This area was selected because four empty steel drums and other waste materials were identified within this area (northwestern corner of the site) during the initial phases of site investigation.

10. A visual interior inspection and hydrostatic test of the sewer ejector pit will be conducted.

11. Flow conditions and PFC concentrations will be evaluated at the unnamed brook that flows past St. Mary's Cemetery into the southern end of the Hoosick Falls well field (see attached figure for brook location.) Stream gauging will be performed at multiple locations along the channelized reach of the brook, and within and near the Hoosick Falls well field, to estimate stream flow loss due to seepage. A sample will be collected for PFC analysis at the most downstream gauging location. Locations of sample collection and flow measurement will be surveyed, and a visual inspection of flow conditions and primary stream courses, beyond the lowermost flow measurement location will be performed and documented. Four temporary shallow monitoring wells will be installed along the brook at the approximate locations shown in the attached figure and will be subjected to the same monitoring and sampling as the other temporary motoring wells.

12. The potential hydraulic connection between the Hoosic River and the Hoosick Falls well field will be assessed by deploying transducers in one or more of the well field observation wells, at additional temporary gauging stations (pending access) in the Hoosic River, and additional on-site and off-site monitoring well locations. See attached figure for locations of existing and proposed river staff gauges.

13. Install up to 5 additional Geoprobe boring/monitoring well locations within the sewer ejector pit room and adjacent building areas to the southwest (down gradient of the sewer ejector pit) to support the development of potential Interim

Remedial Measures. The locations will be selected on the basis of drilling equipment access and presence of buried utilities. Soil samples will be collected at each two-foot sampling interval immediately below the floor slab and sub base to the water table, and analyzed for PFCs, VOCs, TOC, moisture content and pH. Groundwater samples will be collected from the monitoring wells analyzed for PFCs, VOCs, TOC, and major cations and anions.

Upon your acceptance of the supplemental work tasks, we will schedule the work for completion as soon as practicable. At this time it is anticipated that the work noted herein will be completed prior to the submission of the draft RI/FS report, such that the additional data generated can be evaluated as part of the RI/FS submission.

If you have any questions or require any additional information, please contact the undersigned at your convenience.

Respectfully submitted,
C.T. MALE ASSOCIATES

Kirk Moline
Managing Geologist

Enc. Site Map
Proposed Monitoring and Investigation Locations

c: Edward Canning, SGPP
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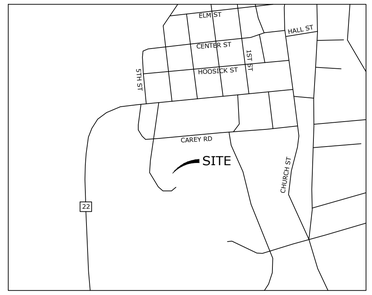

SITE LOCATION MAP
(NOT TO SCALE)

MAP NOTES:

1. Planimetric information and monitoring wells shown hereon was compiled from an actual field survey conducted on August 27, 2015.
2. Boundary lines shown hereon are based on the field location of monumentation shown on map reference no. 1 and now a result of a boundary survey prepared by this office.
3. North orientation and bearing base per map reference no. 1. (Magnetic North April 1995).
4. North orientation and bearings are referenced to Grid North and are based on the New York State Plane Coordinate System, East Zone, NAD 83/2011 epoch 2010.00. The labeled distances shown are Grid distances.
5. Vertical datum shown hereon is NAVD 88 and was obtained from RTK GPS observations using Hudson Falls and Saratoga CORS as base stations and averaging the results.

MAP REFERENCE:

1. "Map of Lands of AlliedSignal Fluorglas Products McCaffrey Street Plant" Village of Hoosick Falls, Rensselaer County, New York, prepared by David F. Barrass Land Surveyor, dated April 1995, Dwg. No. 95-627.

LEGEND

CIRF	CAPPED IRON ROD FOUND
HYD	HYDRANT
IRF	IRON ROD FOUND
MW	MONITORING WELL
SMH	SANITARY SEWER MANHOLE
SED-5	SEDIMENT SAMPLING LOCATION
SB-01	SOIL BORING LOCATION
SS-1	SURFACE SOIL SAMPLING LOCATION
SW-3	SURFACE WATER SAMPLING LOCATION
TPED	TELEPHONE PEDESTAL
VI-1	VAPOR INTRUSION SAMPLING LOCATION
WV	WATER VALVE
SS	APPROXIMATE LOCATION OF SANITARY SEWER LINE
UE	APPROXIMATE LOCATION OF UNDERGROUND ELECTRIC LINE
UT	APPROXIMATE LOCATION OF UNDERGROUND TELEPHONE LINE
W	APPROXIMATE LOCATION OF WATER LINE

PROGRESS PRINT

MICHAEL I. GROFF
P.L.S. NO. 49454

DATE		REVISIONS RECORD/DESCRIPTION	DRAFTER	CHECK	APPR.
	1				
	2				
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DESIGNED:
DRAFTED : S.WUNSCH
CHECKED : J.DIPPERT
PROJ. NO : 14.4756
SCALE : 1"=50'
DATE : MAR. 29, 2017

FIGURE 1
SITE MAP

SAINT-GOBAIN PERFORMANCE PLASTICS
14 McCAFFREY STREET

VILLAGE OF HOOSICK FALLS — RENSSELAER COUNTY, NEW YORK

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SHEET 1 OF 6
DWG. NO: 17-202

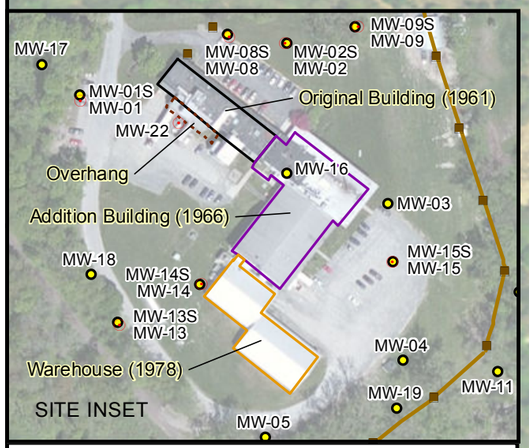
CAD DWG. FILE NAME: K:\Projects\14475\Env\Drawings-Maps\Reporting Submission to DEC\Figure 1.dwg

CAD DWG. FILE NAME: Figure 1.dwg

Wilson Hill Rd
River Rd
Hoosick St
5th St
4th St
3rd St
2nd St
1st St
Hoosick St
Church St
Estabrook Ave
Bussey Ln
Waldron Ave
Willard St
River St
Fiske St
Surdam St
Richmond Ave
Carey Ave
Barton Ave
Railroad Ave
Griffin Ave
Rogers Ave
Dale St
Water Works Rd
Main St
Hill Rd
Mountain View Way
Redmond St
McCaffrey St
State Route 22
Lester Ln
Down Stream Gauge
Up Stream Gauge
Hoosic River
Unnamed Brook

MW-08S
MW-08
MW-07S
MW-07
GW-05
MW-06S
MW-06
MW-09S
MW-09
MW-17
MW-01S
MW-01
MW-22
MW-02S
MW-02
MW-16
MW-03
MW-14S
MW-14
MW-15S
MW-15
MW-18
MW-10
MW-13S
MW-13
MW-20
MW-04
MW-19
MW-11
MW-05
MW-21
MW-12S
MW-12
GW-03
GW-04
Well 5
Well 7
OW-02
PW-7
Well 6
DW-04
Well 3
DW-02
GW-02

420
430
440
450



Legend

Proposed Investigation Locations
- 2 Inch Monitoring Well Cluster
- Temp Geoprobe Shallow/Deep MW Location (Approx.)
- Shallow Geoprobe Location
- Staff Gauge (Approx.)

Existing Monitoring Locations
- Shallow Monitoring Well
- Village of Hoosick Falls Well
- Deep Monitoring Well
- Staff Gauge
- Municipal Sewer Overflow Pipe
- Shallow Groundwater Contour (feet)
- Inferred Shallow Groundwater Contour (feet)
- Deep Groundwater Contour (feet)
- Inferred Deep Groundwater Contour (feet)
- Unnamed Brook
- Geophysical Survey Area

0 150 300 450 FT
1 inch = 350 feet

PROPOSED MONITORING AND INVESTIGATION LOCATIONS

Village of Hoosick Falls — Rensselaer County, NY

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FOUNDED IN 1910

Project Number: 14.4756, 32421001.02
Data Source: NYSGIS Clearinghouse
Projection: UTM Zone 18N NAD83

Map Note: The locations and features depicted on this map are approximate and do not represent a field survey.

BARR